EDITORIAL

The scope of modern zoology

One of the most interesting aspects of editing the *Australian Zoologist* is the scope of the subject matter submitted for publication. This edition presents a good example. In the first four papers we move from a whale trapped in the Manning River, through the marsupial destruction Acts in Queensland 1877–1930, to fossil Australian crocodiles, then to a fauna survey near an airport at Cairns. The subject matter and interdisciplinary connections are different in each paper, the methods vary and many of the technical aspects are also different, yet these papers have three things in common: a dedication to understanding the science of their subject; an enthusiasm for communicating the topic; and a strong commitment to developing a particular aspect of zoological research. This diversity is reflected in the other papers too, with subjects as varied as fish predation on frogs around Sydney, flying-foxes in the Northern Territory, a lyssavirus in flying-foxes, the distribution of blue-tongue lizards in New South Wales, the bats of Fraser Island, and a description of a new species of skink, which will become an immediate candidate for the New South Wales Threatened Species list. It is a fascinating task to edit these wide-ranging contributions to zoology.

The wealth of material that exists within the scope of zoology in Australia provides a basis for a discipline that is both intellectually exciting and socially valuable. Consider the paper by Frances Hrdina, dealing with the numbers of marsupials, principally macropods, destroyed under Queensland Government policy late last century and early this century. The author considered that, although 27 million "pest" macropods had been destroyed, the original purpose of the legislation had not been achieved. The larger marsupials continued to proliferate but the smaller species declined. No doubt in half a century the limitations in present government policy will become apparent, but it is not the point of ecological history to find fault. Its role is to examine the past with the aim of understanding it to help frame current programmes, and to develop insight into the future by studying past rates of population change. Frances Hrdina remarked in the covering letter she sent with her final draft that the tables in her paper were nearly the "death" of her. We are indebted to her persistence in providing the detailed data on the numbers destroyed per year and presenting them in such an accessible form. In doing so, she has contributed considerably to the growing thesis that we need to understand the influences on current numbers and distribution of animals to be able to make the best use of our resources in the future. There is more work to do in this field before it becomes a recognizable discipline within zoology, yet there is little doubt that what has been written so far is much more valuable than just a story of destruction. It helps explain the demise of the now rare wallabies and will contribute to the debate on managing the large kangaroos, including the option of utilizing them as a food resource without endangering their survival.

Paul Willis' paper on fossil crocodiles also exemplifies this principle, though over a much more extended time frame. One of the new twists in recent Australian palaeontology is recognizing that its frame of reference has much to contribute to the current conservation debate. For example, our understanding of biodiversity is given an added dimension when it is appreciated that the extant fauna is but a fraction of what has evolved, flourished and eventually shrunk to extinction as conditions have changed. Conditions will continue to change, arguably at a more rapid rate because of human activities, and the potential for fauna to adapt to that change will be limited by fragmentation of habitats resulting from agriculture and other forms of "development".

Whale strandings are great media events in the prevailing climate of concern for these large marine mammals. They are also a serious subject for zoologists. One of the referees for the paper by David Priddel and Robert Wheeler pointed out that this paper is exactly what is required by those who are interested in the zoological follow-up to a newspaper story of a stranding. The two authors are skilled field zoologists who have worked in the public spotlight. Their paper contributes the detail, the context and the consequences of one well-publicized stranding. Without their thoughtful presentation, the only source of information for most readers would be the media. This paper helps develop a serious and competent response to cetacean conservation.

Bats are emerging as a topic of serious zoological interest. There have been so many bat papers recently submitted to the *Australian Zoologist* that we considered publishing a special edition on bats. We decided against this because the submitted papers did not constitute a

balanced treatment of the subject. The success of the special edition on the Green and Golden Bell Frogs was due in part to the rounded handling of the theme and the inclusion of the major contemporary players in this field. We intend to continue encouraging submissions on bats, asking authors to put their work in a contemporary context, such as conservation, and to provide informative and attractive illustrations. We trust that you will enjoy the bat papers in this and subsequent editions.

Zoologist have a diversity of zoological books on their shelves. The value of each book, its accuracy, content and clarity, is both a matter of opinion and verifiable fact. Our book reviews ensure that the views of competent specialists regarding recent zoological publications are made widely available. They also serve the crucial function of putting potential authors and editors on notice that poor contributions will be criticized. A book may escape the refereeing process during production, but an adverse review after publication serves to let all concerned know that critical views will see the light of day. Reviews help maintain publication standards, keep intending authors alert, and persuade book editors to retain a rigorous refereeing process. Conversely, good books will receive favourable reviews, obscure books will gain the spotlight, and specialist texts will find their target readers more quickly. Book reviewers make a valuable contribution and enrich the zoological literature by their careful analysis, skilful writing and ability to point to errors or omissions that some readers might miss. We trust you will enjoy reading the reviews in this edition of the *Australian Zoologist*. If you are a potential reviewer, please send us your name and area of special interest. If you are a publisher, author or book editor, please continue to send us your review copies.

Editorial guidelines are regularly published in many journals. *Australian Zoologist* shall have such a page in due course. However, it is the underlying editorial principles that are fundamentally important. The Council of the Royal Zoological Society of New South Wales is committed to publishing thoroughly refereed papers in all aspects of zoology and in promoting the conservation of Australian fauna and its habitats. We encourage working scientists to discuss the conservation implications of their findings. The quickest way to see how this philosophy manifests itself in print is to look over the material published by this Society. A list of the Society's publications appears on the inside back cover of each edition. What is immediately evident is the range of viewpoints, the quality of the contributions and, most strikingly, the wide scope of subject matter in the *Australian Zoologist*. So, keep reading and writing and please draw the attention of your friends to the tear-out membership form at the end of this edition.

Daniel Lunney and Lyndall Dawson
Editors
March 1997